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Author(s): Peter Child

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PETER CHILD

## VOICE-LEADING PATTERNS AND INTERVAL COLLECTIONS IN LATE SHOSTAKOVICH : SYMPHONY NO. 15

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There is a tension between diatonic and chromatic, sometimes even atonal, material in Shostakovich's music from every stage of his career.\* This tension had a political dimension, of course, which sometimes led the composer to denounce atonal music in terms which, from our present historical perspective, seem rather exaggerated:

Dodecaphony, serial, pointillist and other kinds of music are one of the greatest evils of 20th-century art. The few composers in our land who endeavor to follow these fads are gravely deluding themselves. . . . These utterly individualistic fads and trends are completely cut off from living music as well as from the living pulse of life. They are based upon artificially invented 'systems.' This applies, first and foremost, to dodecaphony.<sup>1</sup>

For Shostakovich, however, even more than for most composers, his musical works communicate a far more nuanced and sophisticated attitude than do his verbal statements. In these works we frequently discover a subtle exploration of a post-tonal world of tones and intervals. Moreover, he creates structural relationships between the tonal and the post-tonal music, so that his chromatic and diatonic ideas often seem to spring from the same source.

In this essay I shall try to show how, in at least one important late work, Shostakovich achieves a sense of unity through the association of interval structures made up of linear melodic patterns on the one hand and of the voice leading provided by accompanimental harmonic figures on the other. The nature of this association can be illustrated with examples from one of Shostakovich's most popular works, his String Quartet No.8 (1960). The autobiographical connotations of the opening motive of this quartet have been much remarked upon: the pitches 'D-S-C-H' (D-E<sub>b</sub>-C-B) form the

\* A preliminary version of this essay was presented at the New England Conference of Music Theorists at Brandeis University in April 1988.

composer's signature (see Ex. 1). Conspicuous use is made of this motive throughout the quartet, usually without transposition and at the beginnings of phrases:

## Ex. 1



However, in the third movement, the scherzo, the signature motive, and the intervals that it contains, permeate other aspects of the design as well. For example, the melodic passage reproduced in Ex. 2 begins with a rhythmic variation of the original motive, but the continuation of the melody (bs 6-13 of the example), as well as the cadential figure (bs 17-20), consists of transpositions of the motivic pitches. These are bracketed in the example. The accompaniment in bs 2-13 of Ex. 2 consists of two chords, a G minor triad and a chromatic neighbouring diminished triad, the product of chromatic upper-neighbour-note voice leading in parallel tenths. The intervals involved in this voice leading – G-A $\flat$ /B $\flat$ -C $\flat$  – correspond to those of the signature motive. Indeed, the partitioning of the four-note collection that this voice-leading pattern brings about is foreshadowed by the melodic contour of the motive in its original form (Ex. 1). The original motive emphasizes its component semitones by means of contrary motion. A minor third at the midpoint of the motive separates the two contrary-motion stepwise figures, and this of course is the simple form of the interval of parallel voice leading in the accompaniment (see Ex. 2).

The projection of intervals associated with the signature motive through chromatic voice leading occurs twice more in the accompanimental textures of this movement. The first instance, shown in Ex. 3, is an accompanimental figure in the cello. The semitone components of this figure are separated both registrally and temporally: the pitches A and B $\flat$  appear contiguously in every bar; C and D $\flat$  are associated through the downbeat attacks. The interval that separates the semitone figures here is a major sixth, in other words the inversion of the minor third of the signature motive. In the second instance of this technique, shown in Ex. 4, the melodic line consists of transpositions of the signature. The harmony here is analogous to that in Ex. 2: the chromatic upper-neighbour-note voice leading occurs in parallel thirds in the inner parts, while the pedal note C (which defines the triadic character of the harmony and has no direct connection with the signature motive) is transferred to the bass.

These examples from String Quartet No.8 demonstrate a close relationship between the principal melodic motive of the work and the voice leading of some prominent harmonic figures. This relationship stems from the similarity of the intervals contained in the different structural

SHOSTAKOVICH'S SYMPHONY NO. 15

Ex. 2

Ex. 2 is a musical score for three instruments: Violin I (Vn.1), Viola (Va.), and Cello. The score is written in 3/4 time with a key signature of two flats (B-flat and E-flat). The Violin I part features a melodic line with slurs and accents, marked with a circled 5. The Viola and Cello parts provide harmonic support with sustained notes and chords, marked with a circled 10. Dynamic markings include *simile* for the Violin I and Viola parts, and *pp* (pianissimo) for the Cello part. The score is divided into measures 15, 20, and 25.

Ex. 3

Ex. 3 is a musical score for Cello. It shows a rhythmic pattern consisting of eighth notes and quarter notes, with some notes marked with a slash (/) indicating a specific articulation or bowing technique. The key signature is two flats and the time signature is 3/4.

Ex. 4

Ex. 4 is a musical score for Violin I (Vn.1) and Viola (Va.). The Violin I part has a melodic line with slurs and accents, marked with a circled 10. The Viola part provides harmonic support with sustained notes and chords, marked with a circled 10. The dynamic marking is *ff* (fortissimo). The key signature is two flats and the time signature is 3/4.

entities, and it contributes to the coherence and unity of the music. In what follows I shall concentrate on a late work of Shostakovich, his Symphony No. 15 (1971). The musical materials displayed by this work span an impressive range, from the diatonic main theme of the last movement, a theme of captivating simplicity and charm, to stretches of chromatic and even atonal invention. As is well known, the symphony also features quotations from Rossini's *William Tell Overture* and Wagner's *Der*

*Ring des Nibelungen*. I am most concerned here with the relationship that the composer achieves between diatonic and chromatic, tonal and atonal, elements. Consideration of this issue will be limited primarily to the exploration of examples of structural parallelism between voice-leading patterns and motivic interval collections, along lines similar to those that have already been discussed.

Before getting to that, however, I must introduce a stylistic feature that is common to many of Shostakovich's late works, namely the use of twelve-note themes. The late works proliferate with motivic and thematic ideas that have a twelve-note structure, in the sense that no pitch is repeated until all twelve members of the total chromatic have been stated. Often these twelve-note motives, which frequently appear in harness with diatonic, triadic passages, are expanded and developed by means of the familiar techniques of transposition and inversion. Consider for example the music reproduced in Ex. 5, the opening of the second movement of Symphony No. 15. The excerpt consists of two contrasting textures: homophonic brass segments alternating with a thinly accompanied melodic line projected chiefly by a solo cello. The brass segments are tonal and for the most part harmonically straightforward. The cello line consists mainly of successive twelve-note structures. These structures are typical of all the twelve-note themes that Shostakovich uses in this symphony in that each is either predominantly 'harmonic' or 'linear' in design. The melodic process that characterizes the 'harmonic' twelve-note themes is arpeggiation, the presentation of structurally significant disjunct pitch collections. A 'linear' theme, by contrast, features conjunct motion, both among consecutive pitches and in the way that the underlying skeletal melodic structure is formed.

The opening brass phrase is in F minor, ending with a tonicization of the dominant (see Ex. 5). The succeeding cello line begins by echoing the  $\hat{6}$ - $\hat{5}$  stepwise descent made prominent in the horns at bs 11-12 and proceeds by arpeggiating a tonic triad. The four-note segment that opens the cello line has a transitional function: it appears to prolong the tonality of the preceding phrase, but it also initiates a procedure that swiftly dissolves the sense of tonality here. The F minor triad arpeggiated in b.19 functions as a pivot chord in music that modulates not between different keys, but between different means of musical organization. The succeeding four-note segment is a sequential repetition of the first four notes, another triadic arpeggiation preceded by a descending neighbour motion (e<sub>b</sub>-d-g-b). The harmony now is remote from F minor, and in the absence of appropriate voice leading and harmonic preparation these pitches have no functional meaning from a tonal point of view. The final four-note segment condenses the motion to its descending neighbour figure: f $\sharp$ '-e', b $\flat$ '-a'.

Thus, the melodic structure of this twelve-note theme can be described in terms of successive transformations of the opening four-note motive. Its chromatic density, sustained in the material that follows, defies the

SHOSTAKOVICH'S SYMPHONY NO. 15

Ex. 5

Adagio  
Brass

The score consists of several systems of staves. The top system is for Brass, with dynamics *mf*, *pp*, and *p cresc.*. The second system includes a first violin part (F. I.) and a cello part (Cello), with dynamics *f*, *dim.*, and *p*. The third system features a cello part (Cello) and a violin part (Vns.), with dynamics *f* and *p*. The fourth system shows a violin part (Vns.) and a cello part (Cello), with dynamics *p* and *f*. The fifth system includes a violin part (Vns.) and a cello part (Cello), with dynamics *p*, *mp*, and *dim.*. Measure numbers 5, 10, 20, 25, 30, and 35 are marked throughout the score.

Ex. 5 cont.

The musical score consists of several systems of staves. The first system includes a vocal line and a bass line with a cello part labeled "8 Cb.". Dynamics include *p* and *f*. A circled measure number 40 is present. The second system continues the vocal and bass lines, with a dynamic of *f* and a marking "8 p sempre". A circled measure number 45 is present. The third system introduces a "Brass" part and continues the vocal and bass lines. Dynamics include *p* and *mf dim.*. A circled measure number 50 is present. The fourth system features a "Cello" part and continues the vocal and bass lines. Dynamics include *f* and *p*. A circled measure number 70 is present. The fifth system continues the vocal and bass lines, with a dynamic of *f*. A circled measure number 80 is present. The sixth system continues the vocal and bass lines, with a dynamic of *p*. A circled measure number 85 is present. The score includes various musical notations such as slurs, ties, and dynamic markings.

## Ex. 5 cont.

The musical score consists of three systems of music. The first system has two staves. The upper staff contains a melodic line with a circled '90' above it. Dynamic markings include *mf* and *mf dim.*. The lower staff contains accompaniment with dynamic markings *p* and *pp*. The second system also has two staves. The upper staff continues the melodic line with a circled '91' above it. The lower staff continues the accompaniment with dynamic markings *pp* and *p*. The third system has two staves. The upper staff continues the melodic line. The lower staff continues the accompaniment with dynamic markings *pp*.

functional tonality of the opening of the movement. Appreciation of this point should not be obscured by the prominence of triadic intervals in the twelve-note segment, nor by the chordal use of triads in the accompaniment to the material that follows (for instance, at bs 31 and 37). Because triads are common to both the tonal and 'twelve-note' regions they form an association between them, but the procedures governing their use in each region are different.

The second and third twelve-note structures in this passage, beginning at bs 27 and 39, are typical of Shostakovich's 'linear' themes. They present linear descent and ascent respectively, patterns that are indicated on the analytical staff in the music example. Shostakovich's subsequent transformations of these twelve-note structures illustrate his use of transposition and inversion. The homophonic brass material from the beginning returns at b.54, but it reaches a different tonal conclusion, a chromatic, common-note modulation tonicizing E major. The cadence at bs 70-3 is thus a major third higher than the C major one in bs 14-17. The twelve-note structure that follows is similarly transposed by a major third. The same twelve-note material is recapitulated by the celesta and vibraphone at Fig. 76 of the score, now presented in inversion (see Ex. 6). It is noteworthy that even when Shostakovich is recapitulating a twelve-note structure he does not feel bound to adhere strictly to its original order. Nor is he bound to maintain chromatic completion. At b.51 of Ex. 5 he departs from the twelve-note pattern, apparently in order to foreshadow melodically the return to F minor that follows. It is noteworthy too that Shostakovich's transpositions and inversions of his twelve-note themes always maintain the contour and not just the interval classes of the originals: his procedure is one of motivic development and transformation,

Ex. 6

The musical score for Ex. 6 consists of three systems. The first system shows a Cello (Cel.) part in treble clef with a dynamic marking of *p* and a Violin (Vibr.) part in treble clef with a dynamic marking of *f*. The Cello part has an eighth-note rest above the first measure. The second system shows two staves, both in treble clef, with a dynamic marking of *p* and an accent (>) under the first measure. The third system shows two staves, both in treble clef, with a dynamic marking of *p* and an accent (>) under the first measure.

not of generating generalized pitch-class relationships.

Similar twelve-note techniques proliferate in many of Shostakovich's late works. It is true that none of his music is 'serial' in any substantive sense. As Norman Kay has commented, with reference to Shostakovich's String Quartet No. 12:

[The twelve semitones] are not used in rotation; they do not form a single pervasive entity on which, *as a totally recurring unit* [author's emphasis], the rest of the movement is based. Indeed, the one feature they share with other chromatic statements in the movement is the mere fact that within their scope, all possible semitones have been incorporated. The order, the position in the sequence of notes varies freely.... This explains the fact that almost unlimited 'twelve-note rows' can be uncovered in the course of the movement, without any one of them dominating the melodic potentialities.<sup>2</sup>

Nonetheless, Shostakovich's use of twelve-note themes, together with their various transpositions and inversions, brings to mind in an obvious way the twelve-note method proper, and it contrasts sharply with his harsh public condemnation of 'dodecaphony' cited earlier.

In the music from Symphony No. 15 considered so far, the relationship between the 'tonal' and the twelve-note materials is based primarily upon the use of local procedures stemming from pitches and intervals that are

shared between the two contrasting regions. Elsewhere, however, a deeper relationship is apparent, namely a parallel between the intervallic content and the voice-leading structures of the tonal and twelve-note materials. In order to explore these structural parallels, we need to examine the organizing principles governing some of the non-tonal, twelve-note regions in greater detail.

Example 7 shows the second theme of the first movement, which is in sonata form. This theme is also the first of the twelve-note themes. The twelve-note melody is of the 'linear' type, presenting a stepwise chromatic descent from  $c\sharp^2$  to  $e^1$ . There is a conjunct structure to the accompaniment, too, which presents the perfect fifth  $e-b$  followed by its chromatic neighbours (in contrary motion)  $f-b\flat$ . The voice-leading structure of this segment is graphed in Ex. 8. We shall see later that this theme occurs after a modulation. Despite the chromaticism of the music, the harmonic emphasis upon E-B, combined with the melodic cadential emphasis upon  $e^1$ , has the effect of prolonging the key of E here.

Ex. 7

Example 7 is a musical score for a section of Shostakovich's Symphony No. 15. It consists of three staves. The top staff is a single melodic line in treble clef, starting with a half note  $c\sharp^2$  and followed by a chromatic descent:  $b^2$ ,  $a^2$ ,  $g^2$ ,  $f^2$ ,  $e^2$ . A slur above the notes from  $a^2$  to  $e^2$  is labeled '4-9'. The middle staff is a piano accompaniment with two parts: the upper part is for Trumpets (Tr.) and the lower part is for Trombones and Tubas (Trmbs. Tba.). The Tr. part has a conjunct line:  $c\sharp^2$ ,  $b^2$ ,  $a^2$ ,  $g^2$ ,  $f^2$ ,  $e^2$ . The Trmbs. Tba. part has a conjunct line:  $e^1$ ,  $d^1$ ,  $c^1$ ,  $b^1$ ,  $a^1$ ,  $g^1$ . The bottom staff is a single bass line in bass clef, starting with a half note  $e^1$  and followed by a chromatic descent:  $d^1$ ,  $c^1$ ,  $b^1$ ,  $a^1$ ,  $g^1$ . A slur above the notes from  $d^1$  to  $g^1$  is labeled '4-9'.

Ex. 8

Example 8 is a musical score showing voice-leading structures. It consists of two staves. The top staff is a single melodic line in treble clef, starting with a half note  $c\sharp^2$  and followed by a chromatic descent:  $b^2$ ,  $a^2$ ,  $g^2$ ,  $f^2$ ,  $e^2$ . The bottom staff is a piano accompaniment with two parts: the upper part is for Trumpets (Tr.) and the lower part is for Trombones and Tubas (Trmbs. Tba.). The Tr. part has a conjunct line:  $c\sharp^2$ ,  $b^2$ ,  $a^2$ ,  $g^2$ ,  $f^2$ ,  $e^2$ . The Trmbs. Tba. part has a conjunct line:  $e^1$ ,  $d^1$ ,  $c^1$ ,  $b^1$ ,  $a^1$ ,  $g^1$ . A slur above the notes from  $d^1$  to  $g^1$  is labeled 'N'.

The melody in Ex. 7 divides into two phrases. This segmentation is brought about by rhythmic similarity between the two halves, a similarity reinforced by the chord change at the midpoint of the extract. Each phrase sets forth a chromatic hexachord in close position. The registral boundaries of the first phrase – the highest and lowest notes – express the perfect fourth  $e_b^2$ - $b_b^1$ ; the registral boundaries of the second phrase correspond to the temporal boundary pitches of that phrase – that is, its first and last notes – and express the perfect fourth  $a^1$ - $e^1$ . The pitch collection emphasized in these ways by the melody as a whole ( $E_b$ - $B_b$  plus  $A$ - $E$ ) has the same intervallic structure as the total pitch collection projected by the accompaniment ( $E$ - $B$  plus  $F$ - $B_b$ ). In other words, the ‘harmonic’ tetrachord presented by the accompaniment is equivalent by transposition to the ‘melodic’ tetrachord emphasized by the upper voice.

Let us turn now to a different excerpt, where the basic interval structure is similar but the melodic materials are diatonic. The third movement of the symphony is a scherzo; Ex. 9 reproduces the beginning of the second theme. The melody implies a shift between the tritone-related triads  $E$  minor and  $B_b$  major, and the root and fifth of each triad are emphasized melodically. The first portion of this melody arpeggiates an  $E$  minor triad in such a way that the pitches  $e^2$ - $b^2$  form a boundary; the second portion connects by step the fifth and the root of a  $B_b$  major triad, so that the boundary comprises the pitches  $f^2$ - $b_b^1$ . The accompaniment here recalls that in Ex. 7. The viola moves from  $e$  to  $f$ , while at the same time the cello moves from  $b$  to  $a^\sharp$  (over a pedal note in the lowest voice). Together they present the perfect fifth  $e$ - $b$  and its chromatic neighbours  $f$  and  $a^\sharp$ . The accompaniment thus doubles the boundary pitches of the

Ex. 9

The image shows a musical score for Ex. 9. It consists of a violin solo and piano accompaniment. The violin part is written on two staves. The first staff shows a melodic line starting with a quarter note, followed by a half note, and then a quarter note. The second staff shows a similar melodic line. The piano accompaniment is written on three staves: Timp. (Timpani), Va. (Viola), and Cello (pizz.) (Cello, pizzicato). The Timp. part shows a rhythmic pattern of quarter notes. The Va. part shows a melodic line starting with a quarter note, followed by a half note, and then a quarter note. The Cello part shows a melodic line starting with a quarter note, followed by a half note, and then a quarter note. The measure numbers 49 and 49 are indicated below the staves.

melodic voice; both parts emphasize the same four-note figure, E-B plus F-B $\flat$ . This figure is equivalent to the four-note figure from the first movement emphasized in Ex. 7.<sup>3</sup> This figure can be characterized in terms of voice leading as a perfect fourth (or fifth) plus its chromatic neighbours by contrary motion, or, in terms of interval structure, as a specific partitioning of a 4-9 tetrachord<sup>4</sup> into semitone-related perfect fourths (or fifths). Henceforth it will be referred to as the P4 partitioning of 4-9.

Next let us consider another of the twelve-note themes, the beginning of the scherzo (reproduced in Ex. 10). This material consists of two phrases. Each has a twelve-note structure, such that the second is a transposed inversion of the first. For each phrase, the registral and the temporal boundaries coincide: they are g-c<sup>3</sup> for the first and c $\sharp$ <sup>3</sup>-a $\flat$  for the second. The basic profile of this melody thus consists of g-c<sup>3</sup> plus a $\flat$ -d $\flat$ <sup>3</sup>, compound perfect fourths that are chromatic neighbours by similar motion. In terms of interval structure this four-note figure corresponds to a specific partitioning of the 4-8 tetrachord, again one that emphasizes its component semitone-related perfect fourths. It will be referred to as the P4 partitioning of 4-8.<sup>5</sup>

## Ex. 10

The P4 partitioning of 4-8 occurs prominently throughout Symphony No. 15. It is motivically emphasized in several places in the last movement, most conspicuously in the burgeoning passacaglia that constitutes the middle section. The theme of this passacaglia begins with the material reproduced in Ex. 11a, a phrase that is subsequently isolated and featured in the coda. The pitches that constitute this phrase correspond to the P4 partitioning of 4-8. Example 11b presents the passage in which the passacaglia theme is heard for the first time. Here it is immediately preceded by a quotation of the 'Fate' motive from Wagner's *Ring*, a quotation that recurs prominently in the last movement. The passage accomplishes a shift from a tonal (albeit chromatic) orientation to a non-tonal, chromatic orientation, a transition which exploits structural parallels between the Wagner motive and the passacaglia theme. From a tonal perspective, the perfect fifth G $\sharp$ -d $\sharp$  that begins the passacaglia plays a

## Ex. 11

Ex. 11 consists of two parts, a) and b). Part a) is a single staff in bass clef, 2/4 time, with a key signature of one sharp (F#). It shows a melodic line starting with a quarter rest, followed by a quarter note G2, a quarter note A2, a quarter note B2, and a quarter note C3. A slur above the notes is labeled '4-8'. Part b) is a multi-staff arrangement. The top staff is for Brass, with a key signature change from one sharp to one flat (F major) and a time signature change from 2/4 to 3/4. It features a complex rhythmic pattern of eighth notes. The middle staff is for Timpani and Viola, showing a chromatic descending line of roots and fifths: G# (VI), F# (V7), and E (I). The bottom staff is for Cello and Double Bass (pizzicato), showing a chromatic descending line of roots and fifths: G# (VI), F# (V7), and E (I). A separate staff at the bottom shows a bass line with a chromatic descending line of roots and fifths: G# (VI), F# (V7), and E (I).

pivotal role. Grouped with the music that follows, it forms part of a prominent pitch collection; grouped with the 'Fate' motive, it provides a resolution for the dominant-seventh chord with which the motive ends, a resolution which is all the more emphatic because this is the only time the Wagner motive is resolved that way in Shostakovich's piece. In addition, the juxtaposition of motives here brings into relief a structural feature implicit in Wagner's harmonic progression which links it to the P4 partitioning of 4-8. As Ex. 11b shows, the roots and fifths of Wagner's chords, corresponding to the lowest two voices of the four-part voice leading, are chromatic neighbours by similar motion. From the perspective of pitch set structure, on the other hand, it is the notes e and d# that play a pivotal role: these are the notes held in common between the 4-8 tetrachords associated with the 'Fate' motive and the passacaglia theme. (They are also the pitches most emphasized by the quaver ostinato figure in the timpani and violas.)

A similar four-note figure underlies the enigmatic, tonally ambiguous principal theme of the first movement (see Ex. 12a). This brisk, laconic idea, which saturates the movement, encapsulates a dichotomy between A $\flat$  major and A major. The roots and fifths of these two triads are chromatic neighbours by similar motion, together comprising a P4 partitioning of 4-8. The dichotomy expressed by this theme is made explicit at a later point in the movement, when the melodic figure, stated in rhythmic augmentation, is harmonized by a common-note chromatic modulation from A $\flat$  major to A major (see Ex. 12b). This dichotomy is central to the

## Ex. 12

Ex. 12 consists of two musical excerpts, labeled a) and b).  
 Excerpt a) is in 2/4 time and features a Flute (Fl.) line in the upper staff and a string line (Strs. (pizz.)) in the lower staff. A bracket labeled '4-8' spans the first two measures of the string line. The key signature has two sharps (F# and C#).  
 Excerpt b) is also in 2/4 time and features a woodwind line (W.W. Strs.) in the upper staff and a tuba line (Trbs. tba.) in the lower staff. The woodwind line includes markings for 'Hns. trs.'. The tuba line includes dynamic markings (>). Below the tuba line, harmonic markings are provided: Ab, V7, 16, A: V3, and 1. The key signature has one flat (Bb).

argument of the first theme group, a lengthy, meandering melody that shifts chromatically between  $A_b$  major and A major, together with their related keys.

The conflict between these distant regions becomes most vivid at the point where Shostakovich places the first main structural boundary of the movement, in preparation for the second theme (Ex. 7). The passage in question is reproduced in Ex. 13. Careful inspection reveals a close relationship here between the central tonal dichotomy of the movement ( $A_b$  major and A major), voice-leading structures that produce chromatically conjunct fourths and fifths, and locally prominent motivic figures derived from P4 partitionings of 4-8 and 4-9. Tonally, the goal of the bridge passage is  $E_b$  major, the dominant of  $A_b$ . The second theme group, however, is centred not upon  $E_b$  but upon E, the dominant of A major. Indeed, Shostakovich's quotation from the *William Tell* Overture appears early in the second theme group, and in all its appearances it is in the key of E major. This 'conflict of dominants' immediately gives rise to the intervallic association between  $E_b$ -B $_b$  and E-B – P4 partitioning of 4-8 – across the structural boundary between the bridge and the second theme. The bracket beneath bs 12-15 of Ex. 13 highlights this association.

The first arrival upon the dominant of  $A_b$  happens at b.5 of Ex. 13. This arrival is succeeded by a vigorous conflict between A major – ostensibly the tonic key – and  $E_b$  major, a conflict in which the intervals  $E_b$ -B $_b$  and A-E are conspicuously emphasized in the accompanying voices (see the brackets beneath bs 5-11 of the example). Together these pitches comprise a P4 partitioning of 4-9. It is especially worth attending to bs 7-11 of Ex. 13. Here a static harmonic interval, A-E, supports a melodic sequence that passes from A major through  $F\sharp$  major to  $E_b$  major. The tonal strength of the  $E_b$  major goal at b.11 is a product of this sequence, combined with the shift in harmonic support to the interval  $E_b$ -B $_b$ . This interval, the root and fifth of an  $E_b$  triad, forms a P4 partitioning of 4-9 with the preceding interval A-E. In this short passage, in other words, there is an intimate connection between Shostakovich's tonal concerns and interval structures

Ex. 13

The musical score for Ex. 13 consists of four systems of piano music. The first system begins with a forte (*f*) dynamic and features a melodic line with a circled 5 and a final *mf* dynamic. The second system includes a sequence of chords: A major, F# major, and Eb major, with a circled 10 and a *f* dynamic. The third system contains a *dim.* dynamic, a *p* dynamic, and a circled 15, with a bracketed section labeled '(expansion)'. The fourth system features a circled 20 and a circled 25, with a bracketed section labeled 'figure'. Various other annotations include '8va', 'x', 'x'', 'Ab: V/v', '(II<sup>7</sup>)', and '12-note'.

associated with prominent motives and voice-leading patterns.

The pitch classes A, E and Eb make up the trichord 3-5. This is a prominent subset of both 4-8 and 4-9. Indeed, trichord 3-5 is the only available trichordal subset of 4-9; it is two of four possible subsets of 4-8, the other two being 3-4 (see Ex. 14). Trichord 3-5 is the source of several important motives in Shostakovich's symphony. Example 15 (also from the first movement) is a particularly interesting excerpt, not only because 3-5 is motivically emphasized, but also because this passage reveals the close interrelation between 3-5 and the tetrachordal sets discussed above. The passage has three motivic components, marked (a), (b) and (c) in Ex. 15.

Ex. 14

Ex. 15

The (b) motive is the second theme, discussed above. (a) is derived from (b): it is a reduction of the stepwise descent implied by this theme. The underlying stepwise structures of motives (a) and (b) are indicated above the music (cf. also Ex. 8). Intervallically, (a) is a stepwise expansion of tetrachord 4-8; this structure is shown beneath the music, marked (x). I have already described how the theme marked (b) here is an expansion of a 4-9 tetrachord, marked (y) in Ex. 15. Comparison of the 4-8 and 4-9 tetrachords in (x) and (y) reveals that they have three pitches in common:

e, a and b $\flat$ . This is again a 3-5 trichord, one of the two possible 3-5 subsets of the 4-8 tetrachord in (x). The other such trichord contains the pitches e, f and b $\flat$ , and these make up the motive marked (c) in Ex. 15. Notice that the pitches e and b $\flat$  are brought into relief by the motive marked (a), and that these pitches are held in common among all the three-note and four-note sets discussed in this example.

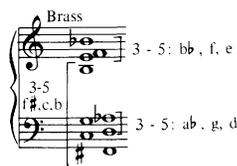
The trichord 3-5 plays an important motivic role throughout the first movement of Shostakovich's symphony. It recurs in later movements too. Example 16 shows the closing material from the third movement; as the example indicates, this material consists of adjacent three-note segments corresponding to the 3-5 trichord. The dissonant chord represented in Ex. 17, which punctuates otherwise plain, diatonic material towards the end of the last movement, is a concatenation of 3-5 trichords. The first theme of the third movement, segmented by contour as in Ex. 18, emphasizes the 3-5 trichord and the intimately related 4-9 tetrachord.

Example 18 (cf. Ex. 10) is of course an example of a 'harmonic' twelve-note theme in which the component disjunct collections are non-triadic pitch collections.

Ex. 16



Ex. 17



Ex. 18



Summarizing Shostakovich's achievement, Boris Schwarz has written:

Shostakovich the composer can be described as an eclectic progressive, rooted in tradition and tonality, yet using dissonance and occasional atonality as expressive means without adhering to any particular school. He spoke out sharply against dodecaphony and serialism, but considered their occasional use 'entirely justified if it is dictated by the idea of the composition'.<sup>6</sup>

In the preceding pages I have attempted to show how a unifying compositional idea in Shostakovich's music can suffuse otherwise disparate materials: tonal, triadic, diatonic, chromatic, atonal, twelve-note. The procedures that have been discussed hinge primarily upon creating parallels of intervallic content and voice-leading structure between prominent linear and harmonic figures. By these means a diatonic line can be brought into association with a chromatic, even atonal, harmony, an atonal melodic figure with a triadic harmonic pattern, and so on. Shostakovich's use of this technique is apparent not only in the chromatically intensified late works, which juxtapose tonal and twelve-note materials, but in earlier mature works as well.

We have seen that material whose intrinsic features are chromatic and even atonal is frequently subordinated to a tonal effect. The use of triads in the twelve-note material of Ex. 5, for example, is evocative of tonality, even though these triads are not functional harmonies in the tonal sense. The music in Ex. 7 prolongs the key of E that is associated with the tonal material that surrounds it by means of its melodic and harmonic emphasis upon E. Again, Schwarz writes:

[Shostakovich's] procedures are not serial, but they lead to an astounding widening of his musical vocabulary, abandoning tonality for long stretches in pursuit of linear logic. . . . Skirting atonality, he was prevented by his innate conservatism from making the ultimate break and always returned in the end to tonal affirmation.<sup>7</sup>

It is perhaps Shostakovich's conservatism that has led to the ambivalence with which he is regarded in Western musical culture, where his music is popular among performers and audiences yet generally neglected in academic circles. Yet, as I have tried to show in these pages, what is truly 'astounding' is not so much the broadening of expressive effect that is brought about by Shostakovich's use of atonal devices, as the technical finesse with which these devices are united to more conventional diatonic and tonal means. In our own day many composers are again exploring the possibilities of a synthesis of tonal and atonal procedures. The time is ripe to approach the music of Shostakovich analytically.

NOTES

1. *The Power of Music* (New York: Music Journal, 1968), pp.36, 27.
2. *Shostakovich* (London: OUP, 1971), p.71.
3. The fact that this tetrachord is in the same transposition as the accompanimental tetrachord in Ex. 7 suggests a possible tonal analogy: both excerpts are 'second themes' which are conventionally associated with 'secondary keys', in each of these cases a tonal region framed by the tetrachord E-F-B $\flat$ -B.
4. See Allen Forte, *The Structure of Atonal Music* (New Haven: Yale University Press, 1973).
5. The close family resemblance between tetrachords 4-8 and 4-9 is borne out by a cursory inspection of their interval vectors:

<i>pc set</i>	<i>pcs</i>	<i>interval vector</i>
4-8	0,1,5,6	200121
4-9	0,1,6,7	200022

They are, moreover, the only tetrachords that feature two separate (non-overlapping) perfect fourths that are related to one another by a semitone.

6. Quoted in *The New Grove: Russian Masters 2* (New York: Norton, 1986), p.202.
7. *Ibid.*, p.199.